ABSTRACT OF THE DISCLOSURE

A method of indexing a high-dimensional vector space, along with a method of quickly retrieving a feature vector having features similar to a query vector from the vector space indexed by the indexing method, are provided. The method of indexing a feature vector space includes the steps of (a) partitioning the feature vector space into a plurality of approximation regions; (b) selecting an arbitrary approximation region to determine whether the selected approximation region is heavily or sparsely distributed; and (c) if the approximation region is determined to be sparsely distributed, indexing the corresponding approximation region as one special node belonging to a child node of the tree data structure, together with any other sparsely distributed approximation region spaced apart by a distance less than a predetermined distance.

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